

# The Whiskeytown Nugget

The official newspaper  
of Whiskeytown National Recreation Area  
Summer 2004

## Geology at Whiskeytown Really Rocks

by Anette Rardin, Visitor Use Assistant

One of my favorite activities at Whiskeytown National Recreation Area is to paddle a kayak to the middle of the lake, stop and view the scenery that encircles me. It reminds me of my grandmother's sapphire ring. The lake, of course, is the gemstone, surrounded by the mountains that hold it in place. The stories those mountains and the landscape tell us are fascinating.

The most dominant feature is Shasta Bally, rising 6,209 feet above sea level. Gazing at Bally, I begin to daydream, going back about 139 million years. A huge mass of magma lay deep within the Earth's crust. For a time it fed area volcanoes. At some point, rather than

being forced out as lava, the huge reservoir of magma was slowly pushed upward. As it neared the Earth's surface, it cooled. Because it cooled very slowly, the minerals formed into grains or crystals, becoming a granitic rock called granodiorite. Wind, rain and snow worked over time to expose Bally's irregular dome-shaped top. But Shasta Bally is much like an iceberg: more of its mass is hidden from view than what our eyes perceive. In fact, Bally is so large that it qualifies as a batholith, an unlayered, hardened reservoir of magma with a surface area greater than forty square miles and which increases in size as it stretches downward.

The shadow of a turkey vulture passing overhead snaps me out of my time-traveling reverie. I paddle the kayak so that I now face southeast. I reflect on the many hikes that I have taken in that part of the park and the greenish rock often found along its paths. The warmth of the day helps pull me into more daydreaming and a bigger time jump - about 460 million years ago!

I visualize a dynamic landscape. Volcanoes spewed forth a relatively thin, basaltic lava that flowed easily. Fingers of lava even made it as far as present-day Whiskeytown. Over a huge amount of time, heat and pressure changed the basalt into a greenish rock called the Copley greenstone, rich in magnesium and chlorite. Partly because it is so old, some of the greenstone has fractured and sheered, becoming crumbly in some areas.

I next spin the kayak just past the direction of the Visitor Center to South Fork Mountain. As my eyes continue to follow the ring of mountains towards the west, my mind rests on the connection between the gold setting of the sapphire ring and the gold found throughout the region. The area's gulches, canyons, and streams - with terrific names like Grizzly Gulch, Mad Ox Canyon and Whiskey Creek - have yielded gold to miners for more than 150 years. Much longer ago than that, however, slowly rising

magma heated water trapped in the Earth hot enough to dissolve the buried gold and quartz. As the mineral-enhanced water was forced upward into cracks and fractures in the mountains, it cooled as it neared the surface, depositing gold and quartz, much to the delight of later-day fortune seekers.



Interesting rock formations on the Mt. Shasta Mine Loop Trail.

One of those fortune seekers was Charles Camden, a successful miner along Clear Creek. Over an eighteen-year period he removed more than \$80,000 in gold. When his mining operation was no longer profitable, Mr. Camden continued with other enterprises, including running the toll road from Shasta and the sawmill on Mill Creek, selling water rights from his water ditch to downstream miners, and leasing the Tower House, a well-known and popular hotel, originally operated by his former partner and brother-in-law, Levi Tower. Some historic features, including the Camden house, can still be seen in the Tower House Historic District at the western end of the park.

With my eyes cast in that westerly direction, I realize that my excursion on Whiskeytown Lake is nearly at an end. I gaze at the setting sun, bid goodnight to a gem of a national park and paddle towards shore.



### A Message From . . .

Jim Milestone, Park Superintendent

*I am very excited that the Friends of Whiskeytown, Inc. is moving into its second year of operation. Reflecting back, we received terrific support over the past year from the donors to this new non-profit organization which allowed the Friends group to accomplish many goals.*

*One significant contribution was assisting the National Park Service to successfully complete the 40<sup>th</sup> Anniversary of President Kennedy's 1963 dedication of Whiskeytown Dam. In developing this celebration, the National Park Service was able to complete a year's effort in conducting research from National Archival libraries from Boston to Denver to San Francisco and rediscover many lost stories and facts related to how Whiskeytown National Recreation Area was created. Using funds donated to the Friends of Whiskeytown, "From the White House to Whiskeytown" was published and is now available at the park's Visitor Center.*

*This in-depth document details how the Trinity River Diversion Project eventually evolved into Whiskeytown-Shasta-Trinity National Recreation Area and what key people and agencies made it happen. Beyond the history booklet published, many historical photographs, film clips, and newspaper articles from President John F. Kennedy's Library have been reproduced and are now stored in the park's archives. It is important to stress that without the support of the Friends of Whiskeytown this collection of information and documents would not have been possible.*

*As you enjoy Whiskeytown Lake's cool waters this summer season, you may wish to send a good thought to those men and women who worked hard in the 1950s and early 1960s to establish the lake and the surrounding park lands. People like Clair Hill, Joe Patten, Senator Engle, Secretary of the Interior Stewart Udall, and Undersecretary James Carr, along with his brother, local attorney and political activist Larry Carr.*

*It is inspirational to read how James Carr master-minded the concept of creating Whiskeytown National Recreation Area and how these two brothers, born and raised in Redding, were central to moving a Bureau of Reclamation Project into a national park site. It is with this same pioneering spirit that the Board of Directors and their friends are working hard to create an effective Friends of Whiskeytown organization that can leverage volunteers, passive revenue strategies, and donations to assist the National Park Service in improving the recreational resources of Whiskeytown.*

*In addition, the park staff is currently working hard to provide you with an outstanding recreational experience at Whiskeytown National Recreation Area. Our summer trail crew is working to improve the Brandy Creek Falls and Boulder Creek Falls trails to access the bases of these lovely waterfalls. Our interpretive rangers and volunteers will be leading free kayak tours again this summer, and our maintenance crew is keeping all the facilities clean. New projects will be completed through the summer with the Youth Conservation Corps, park staff, volunteers and partners. Please keep in touch and feel free to call me with questions or suggestions. Thank you again for your support.*

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National Park Service  
U.S. Department of the Interior  
  
Whiskeytown National  
Recreation Area

Whiskeytown Dam was dedicated in 1963 by President John F. Kennedy. Whiskeytown Lake was created as part of the Central Valley Project for the purposes of flood control, irrigation, and power generation. With more than 40,000 acres in a mountain lake setting, Whiskeytown is home to a variety of wildlife.

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# The Yellowbirds of Summer

by Tricia Ford, Visitor Use Assistant

*Why did the Yellow Warbler fly a thousand miles to Whiskeytown to spend the summer?*

*Because it was too far to walk!*

Nyuk, nyuk, nyuk, that’s based on an old joke. But seriously, why would a bird that winters in the Bahamas, Mexico, Peru, Bolivia, or the Brazilian Amazon travel all the way to northern California to spend just a few months of the year?



Photo by Ann Cook  
Common Yellowthroat

Yellow Warblers belong to a special group called Neotropical migratory birds. The majority are songbirds such as the Yellow Warbler and Common Yellowthroat, pictured here. Their bright colors and loud, cheerful songs are real attention getters. They spend most of the year in the tropics of Mexico, Central and South America, and the Caribbean islands, migrating north to Canada and the United States during our summer.

When it’s summer here, it’s winter south of the equator. As mild as a tropical winter may be, the migratory songbirds prefer to head north to raise their young. What are the advantages of bringing up babies in the north? During our summer, we have more abundant, protein-rich food, like flying insects and caterpillars, to feed the nestlings. The northern summertime has longer hours of daylight during which the bird parents can forage for greater lengths of time to feed their brood. Then there is the sheer size of North America, which has a much greater land mass over which the birds can spread out, reducing the competition for food and nesting areas.

For songsters like the Yellowthroat and the Yellow Warbler, the summer months spent at Whiskeytown are not a laid-back vacation. Rather, they are a mad dash of mate -finding, nest-building, egg-laying, and infant -feeding. Kick the young out of the nest when they are ready to fly and catch their own food, plump up the fat re -serves for extra energy, then fly back almost nonstop to the tropics before the days turn cool in the north.



Photo by Ann Cook  
Yellow Warbler

You can ponder the incredible feats of these small avian power-houses the next time you are on one of the many streams in Whiskeytown. Watch the creekside willows for the sudden flashes of yellow and listen for the songs of the males aggressively pro -claiming their territories or trying to impress a potential mate. Yellow Warblers are imagined to declare, “Sweet, sweet, I’m so sweet,” while Yellowthroats nonsensically repeat, “Witchity, witchity, witchity.”

Although National Park units such as Whiskeytown preserve streamside habitat for these little gems, wetlands are fast disap -pearing throughout the United States by encroaching development. However, the threat to Neotropical migratory songbirds is much greater outside of North America. Deforestation in the tropics continues at a brisk pace. Although the average American may not be able to do very much about what happens to the south of our borders, we can “Think globally, act locally,” as the saying goes. Learn about the waterways in your neighborhood and protect their natural flow and vegetation. Your actions will help maintain the population of migratory songbirds and ensure their colorful return every summer.

## Reminder: Food and Odors Attract Bears

The future of bears and the safety of you and others depends on you. When camping or picnicking:

- Keep the area clean.
- Never leave food out unattended.
- Use bear- proof trash cans where provided.
- Put food and all related items in food storage lockers where pro - vided.
- Bears can break into vehicles. Please take care to store food odor- free and and out of sight.
- Do not feed bears or other park animals.

## A Volunteer’s Perspective of Whiskeytown

by Ed Huey, Volunteer

I had the privilege to be at Whiskeytown Dam on the day in 1963 when President John F. Kennedy dedicated the structure.



The Camden House today.

In the fol - lowing years, Whiskeytown was to me a great place for recre - ation amid scenes of natural

beauty. Then, in 2002, I took a tour of the Camden House, located at the west end of the park. A whole new vista opened for me as I considered that Whiskeytown had historic as well as natural significance.



Tower House area 1850s ambrotype.

Within a few months, I was accepted as a Vol -unteer-in - Park, or “VIP,” for the National Park Service and was assigned to assist service personnel in researching, interpreting, and preserving Whiskeytown’s rich past.

By chance, I had become a VIP at about the time that a floodgate of historic information was opening. Herbert Hubbard, great grand-son of Shasta County pioneers Charles and Philena Camden, had recently donated many artifacts, such as family photos and journals,

concerning the people and places of Camden House and the Tower House Historic District. The generous gifts of Herbert and his wife, Maxine, gave me new insights into the life and times of the early gold miners as well as the generations of people who lived here until the National Park Service acquired the property in 1969.

In my time as a VIP, I have had the privilege of assisting in the work at Camden House, one of Shasta County’s old-est standing structures. I have been able to admire arti -facts dating back to the time of Charles Camden and I have interviewed individuals who are living links to the pioneers. I have even been able to research more recent events, such as the history of the John F. Kennedy Memo -rial at Whiskeytown Dam.



Four ladies playing croquet near Camden House.

My wife Mary Lee, who herself has a great love for local history, has also joined the Park Service as a volun -teer and is presently tran -scribing the journals of the Camden House residents. Our work as VIPs has taken history beyond mere dates and facts. In the artifacts and journals, we are now meeting the people and personalities that have shaped the history of Shasta County.



English Artist Juan Buckingham Wandesforde's (1817 – 1902) artistic interpretation of Tower House Historic District circa late 1800s.

**Join the Friends of Whiskeytown. The Friends of Whiskeytown is a non-profit organization dedicated to helping the National Park Service restore and protect the magnificent resources and recreational opportunities at Whiskeytown. Your contribution of \$25.00 or more will help the park to complete projects that would be otherwise unfunded.**



**Yes!** I want to become a Friend of Whiskeytown and help protect Whiskeytown National Recreation Area. Enclosed is my tax-deductible gift of:\_\_\_\_\_

Donors of \$25 or more receive the Friends of Whiskeytown newsletter twice a year and are listed on the *Friends of Whiskeytown* Contributors Wall at the park Visitor Center. Please make check payable to the “Friends of Whiskeytown, Inc.” and mail to P.O. Box 105, Whiskeytown, CA 96095.

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Telephone ( ) \_\_\_\_\_ Email \_\_\_\_\_

Interested in volunteering? Yes / No (circle one)

Please call our Volunteer Manager’s office at (530) 242-3421 for more information.

*The Friends of Whiskeytown was incorporated in December 2002, as an independent private nonprofit organization. The Friends of Whiskeytown operates under a cooperative agreement with the National Park Service to provide private funding for specific programs and projects that further the preservation, protection or enhancement of Whiskeytown National Recreation Area. The Friends of Whiskeytown is not a membership organization, nor does it engage in political activity or other advocacy. The Friends of Whiskeytown does not receive federal funding of any kind. Contributions to the Friends of Whiskeytown are tax-deductible to the extent that the sum exceeds the value of benefits provided to the donor. For further information, call 530-242-3460.*



# Coexisting with Rattlesnakes

Sue Kelso, Whiskeytown Volunteer

Most people tend to be startled and move quickly at the sight of a snake slithering across their path, afraid they might be the target of a potentially serious bite. Of the 33 species of snakes found in California, the rattlesnake is the only one that is poisonous. They are generally not aggressive and strike only when feeling threatened or provoked. People often fear them, but it is the rattlesnake’s intent to stay away from people. Close encounters can be avoided by becoming familiar with the animal’s habits. The rattlesnake is an important part of the natural ecosystem. They benefit humans by preying on mice and rats which carry diseases and damage plants. For this reason it is important that people learn to coexist with them.

Whiskeytown is home to the western rattlesnake, which is known by the scientific name *Crotalis viridis*. They inhabit a wide variety of habitats in California and are absent only from true desert areas and large areas within the Central Valley where irrigated agriculture has eliminated habitat. They can be found at elevations ranging from sea level to 10,000 feet. The western rattlesnake is one of 250 species of snakes in the U.S. and one of six species of rattlesnakes in California. *C. viridis* varies in color from gray, olive, green, to yellow, depending on habitat. The head is broad and triangular with a narrow neck. Hexagonal blotches along the body become more like crossbands closer to the tail. Two diagonal stripes occur on the side of the head. Rattlesnakes generally reach 24-60 inches in length, males being larger than females.

As elsewhere, rattlesnakes in the park are found beneath shrubs, rock piles, and natural or artificial debris. They avoid wide-open spaces which offer little protection from predators and temperature extremes. The animals are most active during the warmer times of the year, usually April through September, when the temperature is between 70 ° and 90°F. Like other reptiles, rattlesnakes cannot regulate their own body temperature and confine their activity to times of the day when temperatures are within a comfortable range. Many become nocturnal when summer temperatures soar. Generally there aren’t many rattlers in any one area. The number present depends on how many hiding places there are and the amount of available prey. During the winter they seek out dens, usually mammal burrows or crevices in rocks, with other snakes. They do not go into a true state of hibernation, instead slipping into torpor, a state of inactivity, to conserve energy.

Rattlesnakes mate between late spring and early summer. The males engage in a curious phenomenon known as a “combat dance” where two of them entwine their bodies and lunge at each other in an attempt to assert dominance. Neither is harmed in the process. Another fascinating but little known fact about the rattlesnake’s life cycle is that the female gives birth to *live* young. The eggs remain in her body until they are ready to be hatched. She gives birth between August and early fall. Females first reproduce at age 4 or 5 and give birth to 1-14 young every other year.

Each rattler is born with only the first segment of the rattle, called a “prebutton.” Very young snakes are noiseless. The prebutton will be replaced by another “button,” or rattle, with each subsequent shedding. The buttons are composed of a protein similar to that found in a human fingernail. The characteristic “rattling” sound the animal uses to warn potential enemies away is the result of *two* or more rattles on the tail hitting against each other. The animal shakes its tail 60 or more times per second! It is widely believed that a rattlesnake’s age can be determined by counting the number of segments; however, this isn’t so. They generally shed 3-5 times during their first summer and 1-3 times each year thereafter. The number is dependent on climatic conditions and food availability.

Rattlesnakes use venom to immobilize their prey, which allows them to save on energy spent subduing them. It also aids in digestion.

***Rattlesnake bites are uncommon in humans, but they do occur.***

Approximately 20% of defensive strikes do not contain venom. Scientists are unsure why this is so. Rattlesnake venom is complex, consisting of toxins that range from hemotoxins (which break down cells and tissues), to anticoagulants (that prevent the blood from clotting), and neurotoxins (that affect the nervous system). The substance is stored in glands toward the back of the head and injected through hollow fangs positioned parallel to the snake’s jaw line. Through muscular contraction, these hollow teeth are rotated into an erect position prior to biting prey or enemies.

Rattlesnakes are part of the family of snakes known as pit vipers, which are named for the heat-sensitive pits located just behind each nostril. These highly sensitive pits allow rattlers to detect temperature differences between their surroundings and other animals or objects up to several yards away. Using this “heat picture” they can detect the *size* of the creatures they come across. A larger heat image is likely to be an

animal the snake will want to avoid, either because it is not a prey species or because it is a predator. This “heat” vision makes it possible for the animal to hunt effectively, even in total darkness. Rattlesnakes also rely on their vision which is effective at short distances.

To detect scent, the reptile uses its flicking tongue as a second nose. Air particles are gathered and then analyzed for scent. Rattlesnakes have no ears for hearing; instead, they sense vibrations through the ground. Though they feed almost exclusively on rodents, the animal will also eat insects, lizards, birds’ eggs and carrion (dead and decaying flesh). The snake can drop the bottom jaw out of its sockets, in effect “unhinging” it, and swallow whole prey, such as rabbits that weigh up to 2 pounds. In turn, rattlesnakes are preyed on by other snakes and animals, such as coyotes and hawks.

Rattlesnake bites are uncommon in humans, but they do occur. By taking some precautions, visitors at Whiskeytown can avoid them. When hiking, stay on trails and be aware of what’s ahead of you. Place your hands and feet only in areas where it’s possible to see beneath you and watch where you sit. Wear protective clothing such as ankle-high boots and long pants. Keep dogs on a leash according to park rules. Be especially watchful when climbing rocks or gathering firewood. Rattlesnakes pick up vibrations of hikers and will attempt to get out of the way. But if you do spot one, LEAVE IT ALONE. Remain motionless if you are very close (the animals usually strike only at moving objects), or back slowly away if you’re at a distance. If bitten, stay calm. Seek medical attention as soon as possible. Tissue damage around the site needs to be treated. Using a tourniquet, cutting around the area, attempting to suck the poison out, and using ice are no longer recommended.

*Again, remember, rattlesnakes form an important part of the food chain. If you want to learn more about snakes in general and how to identify them, the Whiskeytown Visitor Center has some interesting books on these reptiles.*



Western Rattlesnake



## Whiskeytown Welcomes . . .

*LaNoah Lomax is a Student Trainee hired to work at Whiskeytown this summer as an Office Automation Clerk in the Facilities Management Division. He will be inputting data for the Facility Management Software System that tracks work spent maintaining all of the park facilities.*

*LaNoah, or “Noah” as he prefers to be called, is from Chicago, Illinois, and is a student at Southern University in Baton Rouge, Louisiana. He is studying electronic engineering and will be a sophomore this coming fall. This is his first time in the western part of the United States and he is enjoying seeing California for the first time. He will be working at Whiskeytown until the middle of August, when he will return to school in Louisiana.*

# Good Fire Breaks Make Good Neighbors



The Power Tower prescribed burn consumes dense undergrowth. Visitors view the burn from the Whiskey Creek Bridge overlook.

*Two prescribed burns totalling 795 acres were successfully completed at Whiskeytown this spring. The Power Tower and Shasta Divide burns, located on the park’s eastern boundary, were ignited to reduce fine fuels, dead trees and pockets of dense vegetation in the recreation area. Prescribed fire is one of the tools used by fire managers to reduce the dangerous fuel loads in our forests and is part of Whiskeytown’s commitment to restore forest health and protect our neighbors from catastrophic wildfire.*

*You will see evidence of these burns as you hike along park trails and drive on park roads. The burns are clearly visible from the lake as well. At first glance, you may be dismayed to see the blackened areas with dead trees and brush. Take a second look and think about how the forest is more open now, quickly brightening with new growth, and providing more food sources for wildlife. Just as forests have done for thousands of years, this area will revive.*

New growth can be seen in the days and weeks to come after a fire, taking advantage of the open forest and nutrient-rich soil.





